

(b)

WHAT WE CLAIM IS:

Sub A 2

1. A contact type throttle sensor for detecting a rotational angle of a throttle valve spindle of an internal combustion engine comprising

5 a throttle valve spindle which is rotatably fixed to a throttle body,

10 a holder having brushes which rotate along a predetermined locus together with said throttle valve spindle and being fixed to one end of said throttle valve spindle,

15 a ceramics circuit board having resistors which come into contact with said brushes on the rotational locus of said brushes and which are arranged on a plane orthogonal to an extending direction of said throttle valve spindle, and

20 a housing holding said ceramics circuit board, being furnished with a lead frame and a connector for relaying the electric signal of said resistors and being detachably fixed to said throttle body,

25 wherein said housing has adjustment slots which realize fine adjustments in a rotating direction of said throttle valve spindle.

2. A contact type throttle sensor according to claim 1, wherein a side of said holder near to said throttle body is in an inner side with respect to said holder having

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said brushes, and said brushes are arranged on an outer side of said holder.

3. A contact type throttle sensor according to claim 1,
5 wherein said holder having brushes is provided within a recess of said throttle body, and said ceramics circuit board having said resistors which are fixed to said housing engages to said recess, whereby said brushes hold a contact pressure between said brushes and said 10 resistors.

4. A contact type throttle sensor according to claim 2,
15 wherein a side of said holder near to said throttle body is in an inner side with respect to said holder having said brushes, and said brushes are arranged on an outer side of said holder.

5. A contact type throttle sensor according to claim 1,
wherein said housing is formed to be unitary with said 20 ceramics circuit board having said resistors, said lead frame and said connector.

6. A contact type throttle sensor according to claim 1,
wherein said adjustment slots comprise unloaded holes for 25 adjusting finely an initial value of the electric signal expressive of the rotational angle.

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7. A contact type throttle sensor according to claim 1,
wherein said resistors ~~are made of~~ ^{comprise} electrically conductive
plastics.

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